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ATON

0044

ENDERBY

LAND

1977

③

INDEX

Page	Subject

7/2/77 Khmara Bay area

Island 1 mile SW of Zubchatyy Ice Shelf

(summit area)

Mostly layered mafic pyroxene gneiss with some pyroxenite lenses and layers. Some light coloured pyroxene q/z feldspar gneiss. Dip 350/65. There is development of garnet along small (mms) veins or fractures in the mafic gneiss, but most of the rock is garnet-free. Cut by pink biotite (garnet) magnetite qtz feldspar pegmatite and pink biotite granite veins (some composite). There is retrogression (amphibolitization) adjacent to these. The trend of 2 acid dykes is 055.

4837 Pink biotite granite

Simpson Pk RS, 1438

Centre of island group N of Hydrographer Is

③ Mostly mafic pyroxene gneiss + pyroxene qtz/feldspar gneiss with minor pyroxenite pods. There is much evidence →

of retrogression - development of biotite etc
The gneisses contain pink, slightly discordant layers (up to 1m thick) of sl. foliated, massive granite gneiss. The gneisses, dyke are cut by pink qtz feld biotite pegmatites

i) metamorphosed basic ~~[illegible]~~ dyke cuts the gneisses. It is essentially undeformed except for localized marginal shearing (and associated amphibolization) There is development of garnet along thin fractures or veins in the ~~[illegible]~~ dyke and in the gneiss immediately adjacent to the sheared margin. Garnet is also patchily developed in mafic granulite

Dip is 305/55
Trend of dyke 065

4838 Pyroxene qtz feld gneiss (with no biotite)
4839 granitic gneiss (sl discordant)
4840 mafic pyroxene gneiss with garnet
4841 metamorphosed basic dyke

Coastal outcrop 1 mi SW of McIntyre I S.

Simpson Pk R6, 1345

② Dips 143/61. Evenly dipping, strongly layered white leuco garnet gneiss, mafic 2 pyroxene gneiss, pyroxene qtz feldspar gneiss, pyroxenite pods and lenses, qtz garnet pegmatite veins etc. Many are rather deformed (strongly foliated) and there is abundant evidence of retrogression (biotite around garnets in leucogneiss, biotite in pyroxene gneiss etc) Garnet is quite extensively developed in both mafic granulite and in some more felsic rocks.

Cut by sub-conformable dykes (prob metamorphosed - but no garnet observed), cut by numerous pink biot/garnet pegmatites (trend 315). One pegmatite intrudes a shear zone & ~~other~~ elsewhere X cutting shears are quite common

4842 Leucocratic garnet gneiss

4843 Pyroxene qtz feldspar gneiss

4844 Garnet pyroxene gneiss

4845 Pyroxene granulite with garnet
4846 Garnet pyroxene gneiss
4847 Dyke (? metamorphosed)

Island at NW end of Fyfe Hills

③ Simpson PKR 7, 1270

Mostly medium grain (granular [illegible] of feldspar grains (charnockite) with some major ?pyroxene grains, pyroxenite and ?nucleate garnet of [illegible] [illegible]. Occ- quite widespread development of garnet — both [illegible] and felsic pyroxene grains. Cut by a ?metamorphosed dyke with a little garnet bells. The dykes are [illegible] [illegible] pegmatite.

Dip 340/70
Trend of dyke 060.

4848 massive charnockite gneiss with garnet
4849 metamorphosed dyke

3/2/77

Ntks 10 kms SSW of Latham Peak

E of group   Mt Codrington R 6, 2790

① Dip 280/45.

Massive red-weathering charnockitic gneiss with garnet. Garnet and pyroxene small size about equally abundant, intensity more prominent in individual layers. Some pluvial qtz and some ~~[illegible]~~ localized evidence of retrogression (bleaching etc).

4850 Massive charnockitic garnet pyroxene gneiss

There is little mafic gneiss present and the gneiss is particularly massive with very little compositional layering.

Doggers Ntks (Eg)

4 Chu/[illegible] R 18 9064R

– Massive rested pigmatite [illegible] (but [illegible] well some [illegible]) – some layered gneiss (the Ntks to it are more strongly layered). Some [illegible] (large [illegible]) pyroxene [illegible] pegmatite are present in the [illegible]) Major 2 pyroxene granulite layers, are persistent [illegible], but folded and boudinaged. They almost certainly represent metamorphosed dykes. A major granulite layer contains large garnets with pale coloured reaction rims near the margin of the layer.

Dip 32°/1[illegible]. ([illegible]
m [illegible] to [illegible]) ([illegible])
4851 massive [illegible] pyroxene/garnet
4852 2 pyroxene granulite ([illegible] dyke)
4853 large garnet with garnet [illegible] showing the reaction rims

Mt Kernot — Near Summit

Well layered banded Pyroxene
qtz feld gneiss, garnet pyroxene
gneiss (some with biotite),
mafic 2 pyroxene granulite. Hornblende
(minor — with [illegible]); qtz magnetite
rocks and some garnet-pyroxene-
qtz ± magnetite rocks (associated
with mafic granulite
[illegible] [illegible] [illegible] steep
dips ?)

4854 Garnet qtz feld gneiss (with biotite ? pyx)

Edward Ridge — E end

Biotite garnet qtz feldspar gneiss —
quite garnet and biotite rich with
some quartz/feld rich pegmatitic layers
Also garnet bearing mafic gneiss
(pyroxene ± amphibole). [illegible] [illegible]
red [illegible] [illegible] [illegible] [illegible] [illegible] by
pegmatite.

Dip 120/40

4855 Garnet biotite q/z fold gneiss
4856 mafic ~~[illegible]~~ gneiss with garnet.

Miller Ntks

Mottled medium rock. Charnockitic [illegible] gneiss [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] coloured [illegible]
~~Dip~~ Strike NS (vertical)
4857 Massive charnockitic pyroxene gneiss.

Ntk 8 mls ENE of Wallis Ntks

Similar to above locality – massive mottled, charnockitic pyroxene gneiss. Cut by a [illegible] dyke ([illegible]), Dip 34°/30. ([illegible] [illegible] [illegible] side of Nek)
4858 Massive charnockitic gneiss
4859 [illegible] dyke

Mawson area (7/II/ [illegible])

Evans Island NE

4860 Mod porphyroblastic charnockite

4861 Biotite rich fine grained charnockite

Small island N of Evans I's

4862 Slightly porphyritic charnockite

Island to NW

4863 Even grained charnockite with
a few megacrysts (irregular patch)

4865 Porphyroblastic charnockite

NB W end Stinear Island

4864 Porphyroblastic charnockite

4866 Even grained charnockite

E end of Stinear Island

4867 Mod porphyroblastic charnockite

Lee Is SW

4868 Porphyroblastic charnockite

Gaussberg 26/2/77

Camp area — W side on saddle (~ 100 m level)

4869 Age det. sample

4870 Highly vesicular – glassy crust
4871 " "
4872 Sl. vesicular
4873 "
4874 "
4875 non-vesicular
4876 Sl. vesicular – small glass
4877 Sl. vesicular – glassy crust
4878 Country rock xenolith
{4879-81 Small [illegible] rich inclusions – polished TS
4882 Black glassy vesicles

Summit to camp site

4883-4 Sl. poor vesicular
4885-8 Mod. vesicular
4889-92 Highly vesicular
4893 Sl. vesicular – glassy crust
4894 Glassy crust

4895.6 Highly vesicular glassy
4897.8 Small country rock inclusion

4899, White xen. for XRD
4900 Green XL for XRD

Pillow lavas form most of mountain, but pillow structures possibly less developed near summit (exposures poor however). Lavas range from highly vesicular to almost vesicle free. Margins of pillows are frequently more highly vesicular than cores — vesicles are commonly elongated near margins. The pillow margins are dark & glassy, often with a ropy surface texture. Thin tuff layers are present locally between pillows. Small phenocrysts of diopside ? olivine and possibly leucite are visible in some rocks. A few contain small (~1cm) inclusions rich in olivine ± diopside ± ? leucite ([illegible]). Xenoliths of partly fused [illegible] [illegible] (old) country rock are common and individual white grains may also be derived from country rocks

Vesicles are mostly lined with glass (occasionally filled with glass)

Erratics include biotite schists garnet biotite gneiss some cut by secondary granite veins.

8028 5068 Greenall Nek (ex P. Arriens)
73-1030

5069 ditto (73-1032)

✓ 5070 ES Grew (Riiser-Larsen) 2332H sa/q

5071 " " 2335J sa/q

✓ 5072 " " 2335 osum

✓ 5073 " " 2344C osum

5074 osum metapelite Brusilov

5 " "

6 " "

7 " "

✓(2306A) 81285078 } ES Grew Reference Pk – S end of main ridge

✓(2306B) 79 } Osumilite metapelite

(2306J) 80

(2045A) 8228 5081 ES Grew Sage Ridge Sa SKQ

4742-50

4742 pyroxene – mostly opx ? (? enstatite) + cpx (green)

4743. Si-qtz rock (Mt Oldfield boulder)

4744 Peridotite nodule in Gaussberg basalt

4745 Gaussberg leucite basalt (Tingey sample with A. Cundari)

[redacted] ES free samples

	78285051	2012A	Dyke	Beaver Is
✓	2	2045C	Osumilite	Gage Ridge
✓	3	2045E	"	" "
✓	4	2083C	"	Mt Hardy
✓	5	2126A	?os symp	Mt Torckler
✓	6	2126C	Si + opyx	"
✓	7	2126D	" "	"

79285058 1A Offje metased.

79285061-7 Allan Rossiter's granites (RK-167)

L.P. Black

78285001 – 31

80285032 – 54

80285032	Summers Pk	granite
5046A	Cape Batterbee	doleritedyke
5046B	" –	gneiss

Drum No	Samples
1	3401-2, 6-30, 35
~~2~~	~~3436-9, 46-67~~
3	3468-78, 80-500, 3901-2
4	3903-40
5	3941, 43-74 (49A-D 51A-C 57A-B)
6	3975-4000, 4301-13
7	4314-47
8	4348-82
9	4383-4400, 4601-19
10	4620-54
11	4655-85
12	4686-4700; 4801-28
13	4829-65

~~4866-8 [illegible]~~

2 3436-9; 46-7; 54-67; 4866-8; 4730

14 {4870-8 [illegible]
{4882-98

Films Ant- 13 CT18 ✓
2 CT21 ✓
8 Kodachrome 7

N2 (?)15 C.T18 ✓
+ 1 Kodak

	Room
Sapphirine	2
Sanasteig	14

3401-2

3403-5 = PW

3406-30

3431-4 = PW

3435-39

3440-5 = PW

3446-78

3479 = XRD

3480-3500

3901-41

3942 (? dating muse)

3943-4000

incl 49A-D, 51 A-C, 57A.B ~~[illegible]~~

[4330] ✓

4301-4400

4801-14

4601-700

4815-59

4860-68

4869 (age det)

4870-4900

3863, 67-70